

10/520654
Rec'd PCT/PIB 10 JAN 2003

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 03/01218

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: E05F 15/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: E05F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5316365 A (H.W. KUHLMAN ET AL), 31 May 1994 (31.05.94) --	
A	US 5046283 A (D.E. COMPEAU ET AL), 10 Sept 1991 (10.09.91) --	
A	US 4640050 A (Y. YAMAGISHI ET AL), 3 February 1987 (03.02.87) --	
A	US 5507119 A (K. SUMIYA ET AL), 16 April 1996 (16.04.96) --	

☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"B" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

8 Sept. 2003

Date of mailing of the international search report

12-09-2003

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. +46 8 666 02 86

Authorized officer

Christer Wendenius / MRo
Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 03/01218

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5979114 A (M.E. CLARK ET AL), 9 November 1999 (09.11.99) -----	

INTERNATIONAL SEARCH REPORT
Information on patent family members

26/07/03

International application No.
PCT/SE 03/01218

Patent document cited in search report			Publication date	Patent family member(s)	Publication date
US	5316365	A	31/05/94	DE 69309648 D,T	24/07/97
				EP 0609585 A,B	10/08/94
				JP 6264666 A	20/09/94
US	5046283	A	10/09/91	GB 2246112 A,B	22/01/92
				GB 9106367 D	00/00/00
				US 5138795 A	18/08/92
				CA 2031616 C	13/12/94
				DE 4113391 A,C	07/11/91
				JP 2554786 B	13/11/96
				JP 7113373 A	02/05/95
US	4640050	A	03/02/87	DE 3526761 A,C	06/02/86
				GB 2164090 A,B	12/03/86
				GB 8518430 D	00/00/00
				JP 1871021 C	06/09/94
				JP 5083769 B	29/11/93
				JP 60263732 A	27/12/85
				JP 1731693 C	29/01/93
				JP 4020073 B	31/03/92
				JP 61036480 A	21/02/86
US	5507119	A	16/04/96	DE 4431348 A,C	09/03/95
				JP 7076224 A	20/03/95
US	5979114	A	09/11/99	US 6430875 B	13/08/02
				US 2001022049 A	20/09/01
				US 5906071 A	25/05/99
				DE 69623807 D,T	23/01/03
				EP 0868589 A,B	07/10/98
				WO 9722777 A	26/06/97
				DE 69618199 D,T	18/07/02
				EP 0837997 A,B	29/04/98
				US 5582279 A	10/12/96
				US 5740894 A	21/04/98
				WO 9703303 A	30/01/97